REMARKS

Claims 1-19 currently remain in the application. Claims 1 and 3-9 are herein amended.

The claims section has been extensively amended in view not only of Paragraphs 1-4 of the Official Letter but also in view of the Examiner's rejection, which is based mainly of Friedman. Amended claim 1 is therefore discussed first in view of Friedman. In other words, amended claim 1 is next compared with Friedman in order to show how they are different.

First of all, it is pointed out that Friedman's insert cannot be used for the purpose of the present invention, which is to simultaneously perform grooving and facing actions. The Examiner considered Friedman's component cutting edges 23A and 25A to be equivalents of our facing part 20 but Friedman's edges 23A and 25A are not intended or functions so as to carry out what is herein referred to as the facing action. The Examiner is requested to consider Friedman's Figs. 2, 3 and 7 together. Friedman's component cutting edges 22A, 23A and 25A (that is, including the protruding central component cutting edge 22A) are together considered to form what is referred to as the front cutting edge 11A, and they together serve to form the groove 41 (of which the simple rectangular cross-sectional shape is better seen in Fig. 6). In other words, all three component edges 22A, 23A and 25A, cooperating together to form the front cutting edge 11A, form the groove 41 with a flat bottom (as shown in Fig. 6).

By contrast, the facing part 20 and the grooving part 30 of the cutting insert 10 according to this invention (and as described in claim 1) each function differently. It is only the grooving part 30 that serves to form a groove having a desired groove width. The facing part 20 (or more in particular its bottom surface 22) does not contribute at all to the cutting of the groove. It serves merely to carry out a facing operation (on surfaces outside the groove formed by the grooving part 30, or by its bottom surface 32), and it is why the facing part 20 is referred to as the "facing part".

Friedman's edges 23A and 25A (intended or functioning to carry out the grooving action but not any facing action) and the facing part 20 of the present invention (not intended to carry out any grooving action) are also different structurally. The facing part 20 has its bottom surface 22 formed so as to be flat and parallel all the way through to the bottom surface 32 of the grooving part 30. In other words, the cutting insert 10 of the present invention has two mutually parallel and separate abrading surfaces (that is, the bottom surfaces 22 and 32 respectively of the facing part 20 and the grooving part 30). This is so because it is necessary for the cutting insert 10 be able to perform its intended function (according to claim 19) of simultaneously carrying out both a facing action on a target surface and a grooving action. Claim 1 has been herein amended to now include this limitation.

Friedman's insert 1 clearly does not satisfy this requirement. It is unfortunate that Friedman did not provide any side view to show the profile of the end surface 7A. One can only guess from the diagonal view of Fig. 1 or 8 and what is verbally described in the specification, but there is no clear statement that there are two mutually parallel plane perpendicular to the feed direction F. The protrusion corresponding to the central component cutting edge 22A is only represented by haphazardly drawn curved lines, say, in Fig. 1. This cannot reasonably lead to the conclusion that Friedman disclosed any end surface structure with two flat abrading surfaces that are mutually parallel.

Some of the dependent claims were rejected under 35 U.S.C. 112 for reasons stated in the final 4 lines in page 2 of the Official Letter. As for the symbol "~", this symbol was used, as used not uncommonly by many persons, for designating a rough range. This symbol is herein replaced with symbol "-", which seems to be more commonly used in patent documents. As for the expression "mesh", the Examiner is requested to be informed that this expression is used by some persons skilled in the art as a measure of surface roughness equivalent of the microinches (such as used in the Machinery's Handbook (26th Edition), referred as Document "U" in Notice of References Cited). These explanatory remarks are now incorporated in the specification and the language used in the claims section has accordingly changed. Since no new matter has been introduced thereby, it is believed that these amendments are enterable and the Examiner's rejection will be removed.

An editorial error discovered in Fig. 1 is being corrected. The expression "groove depth" is used in page 6 at line 9, and the Examiner will agree that it was indeed an editorial

error and allow the change as not introducing any new matter.

In summary, it is believed that the instant Amendment is totally responsive to the Office Action and hence that the Examiner will find the application now in condition for allowance.

Respectfully submitted,

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AMENDMENTS TO THE DRAWINGS:

Please approve the amendment to the drawings as indicated in red on the enclosed photocopy. The amendment includes changing one of the word groups "GROOVE WIDTH" in Fig. 1 to --GROOVE DEPTH--. Formals drawings incorporating the changes as approved will be filed after the receipt of allowance.